

Appln. No. 10/047,032  
Amdt. dated December 7, 2005  
Reply to Office Action dated October 20, 2005

IN THE CLAIMS:

Please amend claims 1-20 as follows. The following listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claim 1 (Currently Amended). A transmission system  $[(10)]$  comprising

a transmitter  $[(12)]$  for transmitting an input signal to a receiver  $[(14)]$  via a transmission channel  $[(16)]$ , the  
5 transmitter  $[(12)]$  comprising a splitter  $[(20)]$  for splitting up a single input signal on a single input line into at least first and second frequency band signals, the transmitter  $[(12)]$  further comprising a first encoder  $[(22)]$  for encoding the first frequency band signal into a first encoded frequency band  
10 signal and a second encoder  $[(24)]$  for encoding the second frequency band signal into a second encoded frequency band signal, the transmitter  $[(12)]$  being arranged for transmitting the first and second encoded frequency band signals via the transmission channel  $[(16)]$  to the receiver  $[(14)]$ ,  
15 the receiver  $[(14)]$  comprising a first decoder  $[(26)]$

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for decoding the first encoded frequency band signal into a first  
decoded frequency band signal and a second decoder  $[(28)]$  for  
decoding the second encoded frequency band signal into a second  
decoded frequency band signal, the receiver  $[(14)]$  further  
20 comprising a combiner  $[(30)]$  for combining the first and second  
decoded frequency band signals into  $[(an)]$  a single output  
signal, the receiver  $[(14)]$  further comprising reconstruction  
means  $[(48)]$  for reconstructing the second decoded frequency  
band signal when the second decoded frequency band signal is not  
25 available,

characterised in that the reconstruction means  $[(48)]$  are  
arranged for reconstructing the second decoded frequency band  
signal from the first decoded frequency band signal.

Claim 2 (Currently Amended). The transmission system  
 $[(10)]$  according to claim 1, characterised in that the  
reconstruction means  $[(48)]$  are arranged for reconstructing the  
second decoded frequency band signal from the first decoded  
5 frequency band signal by extending a bandwidth of the first  
decoded frequency band signal.

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Claim 3 (Currently Amended). The transmission system  
[[10]] according to claim 1, characterised in that the  
reconstruction means [[48]] are arranged for reconstructing a  
present frame of the second decoded frequency band signal from a  
5 present frame of the first decoded frequency band signal and from  
a previous frame of the second decoded frequency band signal.

Claim 4 (Currently Amended). The transmission system  
[[10]] according to claim 1, characterised in that the first  
frequency band signal and the first encoded frequency band signal  
and the first decoded frequency band signal are signals having a  
5 low frequency band and in that the second frequency band signal  
and the second encoded frequency band signal and the second  
decoded frequency band signal are signals having a high frequency  
band.

Claim 5 (Currently Amended). A receiver [[14]] for  
receiving, via a transmission channel [[16]], first and second  
encoded frequency band signals derived from a single input signal  
from a transmitter [[12]], the receiver [[14]] comprising  
5 a first decoder [[26]] for decoding the first encoded  
frequency band signal into a first decoded frequency band signal,

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[[and]]

a second decoder [[(28)]] for decoding the second encoded frequency band signal into a second decoded frequency band  
10 signal, the receiver [[(14)]] further comprising  
a combiner [[(30)]] for combining the first and second decoded frequency band signals into [[an]] a single output signal, the receiver [[(14)]] further comprising  
reconstruction means [[(48)]] for reconstructing the second  
15 decoded frequency band signal when the second decoded frequency band signal is not available, characterised in that the reconstruction means [[(48)]] are arranged for reconstructing the second decoded frequency band signal from the first decoded frequency band signal.

Claim 6 (Currently Amended). The receiver [[(14)]] according to claim 5, characterised in that the reconstruction means [[(48)]] are arranged for reconstructing the second decoded frequency band signal from the first decoded frequency band  
5 signal by extending a bandwidth of the first decoded frequency band signal.

Claim 7 (Currently Amended). The receiver [[(14)]]

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according to claim 5, characterised in that the reconstruction means [(48)] are arranged for reconstructing a present frame of the second decoded frequency band signal from a present frame of the first decoded frequency band signal and from a previous frame of the second decoded frequency band signal.

Claim 8 (Currently Amended). The receiver [(14)] according to claim 5, characterised in that the first encoded frequency band signal and the first decoded frequency band signal are signals having a low frequency band and in that the second encoded frequency band signal and the second decoded frequency band signal are signals having a high frequency band.

Claim 9 (Currently Amended). A method of transmitting a single input signal via a transmission channel [(16)], the method comprising:

- splitting up the single input signal into at least first and second frequency band signals,
- encoding the first frequency band signal into a first encoded frequency band signal and encoding the second frequency band signal into a second encoded frequency band signal,

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- 10       •     transmitting the first and second encoded frequency  
          band signals via the transmission channel [[[16]]],
- decoding the first encoded frequency band signal into a  
                  first decoded frequency band signal and decoding the  
                  second encoded frequency band signal into a second  
15       decoded frequency band signal,
- combining the first and second decoded frequency band  
                  signals into [[an]] a single output signal,
- reconstructing the second decoded frequency band signal  
                  when the second decoded frequency band signal is not  
5       available, characterised in that the second decoded  
                  frequency band signal is reconstructed from the first  
                  decoded frequency band signal.

Claim 10 (Currently Amended). The method of transmitting an  
input signal via a transmission channel [[[16]]] according to  
claim 9, characterised in that the second decoded frequency band  
signal is reconstructed from the first decoded frequency band  
5   signal by extending a bandwidth of the first decoded frequency  
     band signal.

Claim 11 (Currently Amended). The method of transmitting an

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input signal via a transmission channel [(16)] according to  
claim 9, characterised in that a present frame of the second  
decoded frequency band signal is reconstructed from a present  
5 frame of the first decoded frequency band signal and from a  
previous frame of the second decoded frequency band signal.

Claim 12 (Currently Amended). The method of transmitting an  
input signal via a transmission channel [(16)] according to  
claim 9, characterised in that the first frequency band signal  
and the first encoded frequency band signal and the first decoded  
5 frequency band signal are signals having a low frequency band and  
in that the second frequency band signal and the second encoded  
frequency band signal and the second decoded frequency band  
signal are signals having a high frequency band.

Claim 13 (Currently Amended). A method of receiving, via a  
transmission channel [(16)], first and second encoded frequency  
band signals derived from a single input signal, the method  
comprising:

- 5       •     decoding the first encoded frequency band signal into a  
first decoded frequency band signal and decoding the  
second encoded frequency band signal into a second

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decoded frequency band signal,

- 10       ● combining the first and second decoded frequency band  
signals into [[an]] a single output signal,
- reconstructing the second decoded frequency band signal  
when the second decoded frequency band signal is not  
available, characterised in that the second decoded  
frequency band signal is reconstructed from the first  
15       decoded frequency band signal.

Claim 14 (Currently Amended). The method of receiving, via  
a transmission channel [[(16)]], first and second encoded  
frequency band signals according to claim 13, characterised in  
that the second decoded frequency band signal is reconstructed  
5 from the first decoded frequency band signal by extending a  
bandwidth of the first decoded frequency band signal.

Claim 15 (Currently Amended). The method of receiving, via  
a transmission channel [[(16)]], first and second encoded  
frequency band signals according to claim 13, characterised in  
that a present frame of the second decoded frequency band signal  
5 is reconstructed from a present frame of the first decoded  
frequency band signal and from a previous frame of the second



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decoded frequency band signal.

Claim 16 (Currently Amended). The method of receiving, via a transmission channel  $[(16)]$ , first and second encoded frequency band signals according to claim 13, characterised in that the first encoded frequency band signal and the first  
5 decoded frequency band signal are signals having a low frequency band and in that the second encoded frequency band signal and the second decoded frequency band signal are signals having a high frequency band.

Claim 17 (Currently Amended). A speech decoder  $[(60)]$  for decoding first and second encoded frequency band speech signals derived from a single input speech signal, the speech decoder  $[(60)]$  comprising

5 a first decoder  $[(26)]$  for decoding the first encoded frequency band speech signal into a first decoded frequency band speech signal, and

a second decoder  $[(28)]$  for decoding the second encoded frequency band speech signal into a second decoded frequency band  
10 speech signal, the speech decoder  $[(60)]$  further comprising a combiner  $[(30)]$  for combining the first and second

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decoded frequency band speech signals into [[an]] a single output  
signal, the speech decoder [[60]] further comprising

reconstruction means [[48]] for reconstructing the second  
15 decoded frequency band speech signal when the second decoded  
frequency band signal is not available, characterised in that  
reconstruction means [[48]] are arranged for reconstructing the  
second decoded frequency band speech signal from the first  
decoded frequency band speech signal.

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Claim 18 (Currently Amended). The speech decoder [[60]]  
according to claim 17, characterised in that the reconstruction  
means [[48]] are arranged for reconstructing the second decoded  
frequency band speech signal from the first decoded frequency  
5 band speech signal by extending a bandwidth of the first decoded  
frequency band speech signal.

Claim 19 (Currently Amended). The speech decoder [[60]]  
according to claim 17, characterised in that the reconstruction  
means [[48]] are arranged for reconstructing a present frame of  
the second decoded frequency band speech signal from a present  
5 frame of the first decoded frequency band speech signal and from  
a previous frame of the second decoded frequency band speech

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signal.

Claim 20 (Currently Amended). The speech decoder [(60)]  
10 according to claim 17, characterised in that the first encoded  
frequency band speech signal and the first decoded frequency band  
speech signal are signals having a low frequency band and in that  
the second encoded frequency band speech signal and the second  
decoded frequency band speech signal are signals having a high  
15 frequency band.